

PATENT

UNITED STATES PATENT APPLICATION

FOR

Method and System for Attracting Visits to Web Sites

INVENTOR:

GAVIN S. H. CHENG

ASSIGNEE:

Muse Corporation
1950 Elkhorn Court

San Mateo, CA 94403

PREPARED BY:

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1026

(408) 720-8598

5

Method and System for Attracting Visits to Web Sites

CROSS-REFERENCE TO RELATED APPLICATION

This application is related to pending U.S. patent applications No.:
09/375,476 and 60/096,884, filed respectively on August 17, 1998 and
10 August 16, 1999, each of which is assigned to the same assignee as the
present application and are hereby incorporated by reference.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention is related to the area of Internet browser
15 applications and more particularly related to a method and system for
attracting users to visit to web pages/sites when browsing to other sites.

Background of the Related Art

In the field of Internet browsing, the popularity of web sites may vary
significantly. Most web sites, however, do share the common interest to
20 increase their number of visits (hits). By increasing their number of visits, the
web site are able to potentially charge higher rates for posting advertisements
on their web sites. In addition, if a web site is offering products for sell, a
more popular web site is likely to be able to sell more products.

Nevertheless, becoming a popular web site is difficult. Attracting first
25 time visitors presents the challenge of initially informing the potential visitors
of the web site's presence. Prior techniques for attracting visits to web sites
include simply presenting advertisements for a web site on television or on the
radio or in magazines/newspapers. However, advertising a web site through
the media may not be effective because the potential web visitor may not
30 remember to visit the advertised web site the next time they are browsing the



15

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be readily understood by the following detailed description in conjunction with the accompanying drawings, wherein like reference numerals designate like structural elements, and in which:

10

Figure 1 shows a schematic configuration in which the present invention may be practiced;

Figure 2A shows an exemplary 3D viewing environment that may be used to practice present invention;

15

Figure 2B shows a top view of a 3D viewing environment including a plurality of walls or display areas;

Figure 2C shows an example of a perspective in a 3D viewing environment that includes a conventional web display, a stream video, an email icon, a chat bar, and advertisement contexts and, each can function independently;

20

Figure 3 is a flow diagram describing the steps of attracting visits to web sites in accordance with one embodiment;

Figure 4 illustrates the accumulation of hits/visits for a plurality of web sites;

25

Figure 5 illustrates an example of a three-dimensional module interface having a set of links to a plurality of web pages/sites, according to one embodiment; and

Figure 6 illustrates an example of a server include a first unit of logic to attract visits to web sites in accordance with one embodiment.

30

DETAILED DESCRIPTION

In the following detailed description of the present invention, numerous specific details are set forth in order to provide a through understanding of the present invention. However, it will become obvious to those skilled in the art that the present invention may be practiced without these specific details. In other instances, well known methods, procedures, components, and circuitry have not been described in detail to avoid unnecessarily obscuring aspects of the present invention.

The detailed description of the present invention is presented largely in terms of procedures, steps, logic blocks, processing, and other symbolic representations that directly or indirectly resemble the operations of data processing devices coupled to networks. These process descriptions and representations are typically used by those experienced or skilled in the art to most effectively convey the substance of their work to others skilled in the art.

The method along with the system to be described in detail below is a self-consistent sequence of processes leading to one or more desired results. It proves convenient at times, principally for reasons of common usage, to refer to data as messages, requests, values, elements, symbols, terms, numbers, or the like. It should be borne in mind that all of these similar terms are to be associated with the appropriate physical quantities and are merely convenient labels applied to these quantities.

Referring now to the drawings, in which like numerals refer to like parts throughout the several views. **Figure 1** shows a system configuration **100** in which one embodiment may be practiced. Data network **102** is a landline network that may be the Internet, the Intranet and a data network of other private and public networks.

5 Coupled to network **100** are a client computer **104**, an application
server **104** and a portal server **108**. Client computer **104** representing one
of numerous devices coupled to network **102** may include, but not be
limited to, a personal computer and a wireless mobile device. Typically,
client computer **104** is operated by a user who desires to communicate
10 with other devices over network **102**.

According to one embodiment, client computer **104** is loaded with
an application or program that is herein referred to as a 3D viewing
environment module or simply 3D browser. The detailed description of
the 3D browser is provided in the reference 09/375,476. When the
15 program is executed in a processor of client computer **104**, the 3D browser
provides an interactive 3D viewing environment or a 3D overlay for the
user to browse various resources in network **100**.

Referring now to **Figure 2A**, there is shown an exemplary 3D
viewing environment **200** displayed by a 3D browser. Walls or display
20 areas **202-210** are applicable for respectively displaying network
resources. Specifically, each of the walls may be perceived as an
independently operable conventional web browser, such as Netscape
Communicator and Internet Explorer.

As used herein, a display, a screen display, a displayed web page,
25 or a displayed window is an image presented on a display screen which is
a physical display apparatus in a device, such as a CRT or LCD monitor
commonly seen with a personal computer. For example, a file that
constitutes a display may be an HTML file. An image or a display thereof
appears on a display screen when the file is read by a browser.

30 In addition to the walls **202-210**, there are various applications
211-213 in 3D viewing environment **200**. These applications may include,
but not be limited to, email, alert, and chat, preferably represented as a 3D

5 icon that could be changed from different viewing angles as a user navigates in 3D viewing environment **200**.

Figure 2B illustrates a top view of a 3D viewing environment **220** that includes walls **222-231**. In one embodiment, a user is graphically situated at **234** looking at wall **222** and can at any time move to any other wall or walls as desired. One of the advantages provided by a 3D viewing environment is to permit a user to navigate therein from one wall to another, just like walking in a museum or shopping wall setting.

Figure 2C shows an example of a perspective **240** in a 3D viewing environment that includes a conventional web display **242**, a stream video **244**, an email icon **246**, a chat bar **248**, and advertisement contexts **250** and **252**, each functioning independently. For example, stream video **244** is playing while chat bar **248** is active and email icon **246** receiving mails without obscuring each other. As noted, advertisement contexts **252** is partially shown and may be shown completely when the user navigates/scrolls towards the right of the screen, which may cause display **242** and chat bar **248** to become partially shown at left.

Referring now back to **Figure 1**, application server **106** is one of many servers on network **100** that supports one or more web sites and provides interactive resources to be displayed at the client computer (e.g., the 3D viewing environment of **Figures 2A-2C**). Consider the example of the application server **106** supporting a web site for a shopping mall. Rather than showing a number of static hyperlinks or icons, each representing a store in the mall as typically seen from the conventional web browser, the shopping mall is electronically structured for the 3D viewing environment. In such an example, each of the store fronts may be shown as one of the walls or 3D icons that permit users to “walk” in and browse in the store.

5 Portal server **108**, as shown in the data network, may support a
web search engine for the client computers, or related portal services, such
as, news, white and yellow pages directories, free e-mail, discussion
groups, online shopping and other types of links to separate web sites. In
one embodiment of the present invention, the portal server **108**, provides
10 to the client computers a 3D viewing environment/ module interface, as
discussed above.

Figure 3 illustrates a flow diagram describing the steps of
attracting visits according to one embodiment. It should be noted that the
steps in **Figure 3** do not inherently indicate any particular order nor imply
15 any limitations in the present invention. In step **302**, a portal server
receives an input from a client computer coupled to the portal server via
the Internet, or alternatively via an intranet connection.

The input received is interpreted to be a request to interconnect the
client computer with a designated web page/web site, typically hosted by a
20 separate application server. The designated web page selected by the
client computer may be selected from a list of links displayed via a
browser on the client computer, as provided by the portal sever, or may be
input by a user at the client computer (e.g., a Universal Resource Locator).

In step **304**, in response to the request from the client computer for
25 the selected web page, the portal server initiates navigating to retrieve the
selected web page. In one embodiment, in addition to navigating to
retrieve the selected web page, in step **306**, the portal sever provides to the
client computer a 3D module interface that is displayed at the client
computer via a 3D browser at the client computer.

30 More specifically, in one embodiment the portal sever further
provides to the client computer a set of links to a plurality of separate Web
pages or sites (pages and sites are used interchangeably hereafter). The
links are displayed within the 3D module interface, as displayed at the

5 client computer. In one embodiment, the 3D module interface is displayed at the client computer during the time period that elapses while the portal server is retrieving the web page previously selected by the client computer.

10 In an alternative embodiment, the set of links to the plurality of separate web pages as displayed in the 3D module may be dynamically selected by the portal server each time it retrieves a web page as requested by a user at a client computer. Moreover, the set of links to the plurality of separate web pages may correspond to a subject matter related to the web page requested by a user at the client computer.

15 In one embodiment, at least some of the plurality of links to separate web pages embedded in the 3D module include a representation of a number of visits to the respective web pages. For example, the representation may be a numerical representation indicating the number of visits to the respective web page within a recent pre-designated period of time (e.g., hour, day, week, month.) Alternatively, the representation of the number of visits may be a rating on a scale (e.g., 1-10). The rating could be a scale relative to other links to web pages as included in the 3D module interface. Further, the representation of the number of visits to a group of web pages may be from a group of paid subscribers to the host of the portal server for showing the popularity of the respective web pages in a hope to further attract more visits thereto.

25 In one embodiment, the number of visits corresponding to the respective web pages to be represented in the 3D module interface may be accumulated and maintained at the portal server, or alternative at a separate server. For example, as shown in **Figure 4**, the number of hits/visits for the respective web sites, as designated by their domain names, may be accumulated and stored on a server every time a request is made to visit a respective web site.

5 In addition, the representation of the number of visits to the respective web pages may be shown as a graphical representation. The graphical representation could have a graphical correlation to the web page, to which the graphical representation corresponds.

10 In one embodiment, the 3D module is scrolled across the screen of the client computer (horizontally or vertically), in an evolving manner. For example, the scrolling 3D module may appear on the display of the client computer as a scene in a window from a moving car. In a further example, as illustrated in **Figure 5**, the 3D module could represent a revolving globe with respective links to the plurality of web sites provided
15 as dots on continents. Beams could be shown as trickling feeding to the dot/links, the density thereof representing the popularity of the respective sites (i.e., the number of times/frequency that the respective site has been visited). As a result, the popularity representation may attract visits to those dots/links.

20 In addition, the set of links to the plurality of separate web pages may be posted within the 3D module as a result of paying a fee (e.g., a subscription to the portal server). For example, in one embodiment, the greater the payment to post a link within the 3D module, the earlier within the 3D module interface the respective link may be displayed.

25 In one embodiment, the duration for displaying the 3D module interface which includes the links to the plurality of web pages could be extended beyond the time period it takes the portal server to retrieve the selected web page. In such an embodiment, the 3D module including the links to the plurality of web pages would continue to be displayed at the
30 client computer for an extended period time in place of the web page previously selected by a user at the client computer.

 In step 308, it is determined if a user at the client computer (where the 3D module is displayed) has selected/highlighted a link displayed in

5 the interface. If the user has selected a link in the 3D module interface, in
step 310 the portal server initiates navigating to retrieve the selected web
page. In one embodiment, the recently selected web page could be
retrieved and displayed at the client computer in place of the previously
selected web page. Alternatively, the recently selected web page could be
10 retrieved and displayed at the client computer concurrently with the
previously selected web page.

In step 312, in further response to a user at the client computer
selecting one of the links to the plurality of web pages, the portal server
increments a count of visits to the respective web site. In one
15 embodiment, the count can be stored locally at the portal server, or
alternatively remotely at a separate server, as previously discussed.

In step 314, if none of the links to the plurality of web pages in the
3D module have been selected while the portal server has navigated to
retrieve the previously selected web page, the portal server proceeds to
20 retrieve and display the originally selected web page.

The method for attracting visits to web sites/web pages, as
described above, can be stored in memory of the portal server, as a set of
instructions to be executed, as shown by way of example in **Figure 6**. The
server as shown in **Figure 6**, includes a server module having a Domain
25 name manager, a log file manager, along with the logic to attract visits to
Web sites, as previously mentioned. The domain manager manages a list
of domains (names of web sites) along with a number of visits to each of
the web sites for a predefined period. Log file manager determines if a
request received from the network will cause a new entry to the list in the
domain manager and provide necessary statistic data representing the
30 popularity of the sites in the list to a terminal device that sent the request.
For example, a request received from a terminal device is for
www.xyzcorp.com, log file manager first check with the domain list in

5 the domain manager to see if www.xyzcorp.com is being statistically
measured with respect to the number of visits to the site. If it is found that
www.xyzcorp.com is not in the list, the name may be added into the list
so that the popularity thereof can be measured. If www.xyzcorp.com is in
the list, the domain manager may be caused to increment its measurement
10 on the particular site. Alternatively, the log file manager is used to control
a list of certain sites, preferably paid for by the respective owner thereof,
that the popularity of these sites should be always measured and displayed
whenever there is an opportunity to display such information to a terminal
device, hence potentially increasing the number of hits to these sites in the
15 paid list. In addition, there are a processor, storage, and a port to
interconnect the server with a data network, such as the Internet.

In addition, the instructions to perform the method of attracting
visits to Web sites, as described above could alternatively be stored on
other forms of machine-readable medium, including magnetic and optical
20 disks. For example, method of the present invention can be stored on
machine-readable mediums, such as magnetic disks or optical disks, that
are accessible via a disk drive (or computer-readable medium drive).
Further, the instructions can be downloaded into a computing device over
a data network in a form of compiled and linked version.

25 Alternatively, the logic to perform the methods as discussed above,
could be implemented in additional computer and/or machine readable
mediums, such as discrete hardware components such as large-scale
integrated circuits (LSI's), application-specific integrated circuits
(ASIC's), firmware such as electrically erasable programmable read-only
30 memory (EEPROM's); and, electrical, optical, acoustical or other forms of
propagated signals (e.g., carrier waves, infrared signals, digital signals,
etc.); etc.

The present invention has been described in sufficient detail with a certain degree of particularity. It is understood to those skilled in the art that the present disclosure of embodiments has been made by way of examples only and that numerous changes in the arrangement and combination of parts may be resorted to without departing from the spirit and scope of the invention as claimed. Accordingly, the scope of the present invention is defined by the appended claims rather than the foregoing description of embodiments.

scope of the invention as claimed. Accordingly, the scope of the present invention is defined by the appended claims rather than the forgoing description of embodiments.

scope of the invention as claimed. Accordingly, the scope of the present invention is defined by the appended claims rather than the forgoing description of embodiments.